

## LCGCC Recommendations submitted by Todd Miller - February 5, 2010

Dear Tim,

Landowners, businesses, industries, and governments have already begun to adapt to climate change. Their need to adjust investment and management decisions increases as the climate warms. Now is the time for North Carolina to proactively plan for the consequences of climate change, and to begin to carry out mitigation measures that will ensure the long-term productivity and health of the State's environment and economy. This will require developing a strategic plan for how best to adapt, and then implementing the plan through public and private actions accompanied with public education and involvement.

In specific, I would like to encourage that the Legislative Commission on Global Climate Change (NCGCC) advance the following recommendations:

1. The General Assembly should require the Secretary of NCDENR to develop a comprehensive State Climate Change Adaptation Plan (SCCAP) by January 1, 2012. This strategic plan should be developed with public involvement and in close coordination with state and federal agencies, commissions, local governments, non-profit organizations, and universities. It should result in specific recommendations for legislative, regulatory, investment, and policy changes that will enable North Carolina to adapt to climate changes in environmentally and economically sensible ways. The plan should focus on devising recommendations that will protect the long-term environmental and economic health of the state, and set priorities for adaptation that will minimize adverse impacts of climate change. The plan should include an economic analysis to determine the potential costs and benefits of a "status quo" alternative and of implementing recommendations proposed in the State Climate Change Adaptation Plan. The study should prioritize recommendations in the plan based on the certainty of impact, and minimization of adverse impacts to citizens, ecosystems, and local economies. It should focus on adaptation needs resulting from sea level rise, as well as changes in rainfall and temperature that could alter traditional industries such as agricultural, forestry, and fishing.
2. The General Assembly should select one of its Committees to track progress in developing the SCCAP and to oversee implementation of its recommendations that require legislative action and funding. One option is to amend Section 120-70.43 (Powers and duties) to encourage and provide specific guidance to the Environmental Review Commission to oversee and establish state policies and programs on Adaptation to Climate Change.
3. The NCGCC should endorse the recommendations that resulted from the Beach Management Summit that was held in March 2009. These

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recommendations (attached) have already been endorsed by a diverse set of coastal stakeholders who are active in local government, state government, the research community, and environmental interests. The NCGCC should ask the General Assembly to request that the Environmental Review Commission (or another designated Commission) and the Governor address the recommendations made by the Beach Management Summit in March 2009.

4. The Secretary of DENR should promote the use of “living shoreline” management methods on estuarine shorelines, and explore incentives and regulatory changes that would encourage the use of climate-ready erosion control strategies.
5. The Secretary of the Department of Commerce should investigate the feasibility of establishing a carbon sequestration market place in North Carolina by promoting the restoration and creation of habitat that will serve as a carbon sink. If feasible, this market place should be incorporated into economic development strategies of the Department.
6. The NCDENR as part of developing the SCCAP should work with the State University system to propose a framework for developing the necessary data base to make economically and environmentally prudent adaptation decisions. This mapping should include the following aspects:
  - A. Undertake an extensive field survey and inventory of the geologic and ecologic character of the entire shoreline system and map the detailed distribution of shoreline types.
  - B. Carry out a field survey and inventory of the anthropogenic modifications of the entire shoreline system (e.g., hardened shoreline structures, piers, marinas, channels, etc.) and map their distribution.
  - C. Initiate a periodic coastal land survey (every 5 years) that incorporates high-resolution, geo-referenced, infrared aerial photography and LiDAR topography of the entire coastal zone to monitor absolute changes in shorelines, ecosystems, and land use.
  - D. Produce a bathymetric survey of the inland coastal waters that can be utilized for detailed modeling of estuarine storm surge, water quality, and sea-level rise, as well as supplying critical data for modeling shoreline erosion, distribution of submerged aquatic vegetation, and ecosystem migration, etc.

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- E. Establish two kinds of permanent monitoring stations within the NC coastal zone: (1) A system of oceanic, estuarine, and riverine stations should be established to measure the absolute changes in sea-level rise, characterize the dynamics of storm surges and tides, and monitor water flow and quality through the coastal system, etc.; and (2) A series of land-based sites should be established in different ecosystems to monitor ecological change of habitats through time (e.g., growth rates, structure and function, freshwater resources, saltwater intrusion, sedimentation and erosion rates, and development, etc.).

Please include this email and the attached document (beach summit recommendations) as part of the official record for the legislative study commission.

Thank you for considering these suggestions.

With best regards,

Todd

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Join us for a Coastal Cohorts Concert in March  
Tickets and ticket locations at [www.nccoast.org](http://www.nccoast.org)